

## APPENDIX B

The following SOAP-based XML code exemplifies some of the various APIs provided by the invention in an exemplary embodiment.

The format of an exemplary call to reserve a namespace follows.

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m:NameSpaceReserveRequest
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <ClientInfo>{Client Application Name}</ClientInfo>
      <Version>2.0</Version>
      <Authorization>
        <Domain> EncryptedkeyX{A.com}</Domain>
        <SiteID>{X}</SiteID>
      </Authorization>
      <AffiliateAdmin>Joe@A.com</AffiliateAdmin>
      <NameSpaceAdmin>
        <SignInName>Fred@B.com</SignInName >
        <Password>101-Dalmations</Password>
      </NameSpaceAdmin>
    </m:NameSpaceReserveRequest>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

If the request to reserve a namespace succeeds, the format of a NameSpaceReserveResponse XML response is as follows.

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m:NamespaceReserveResponse
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <Success>True</Success>
      <UID>123456789</UID>
    </m:NamespaceReserveResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

If the request to reserve the namespace fails, the following SOAP error response may be sent.

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Body>
    <SOAP-ENV: Fault>
      <faultcode>SOAP-ENV: Server</faultcode>
      <faultstring>{error text message}</faultstring>
      <detail>
        <merror: errorInfo
          xmlns:merror="http://schemas.com/soap-toolkit/faultdetail/error/">
          <merror:returnCode {code}</merror: returnCode>
            <merror:serverErrorInfo>
              <merror:description>{error text message }</merror:description>
            </merror:serverErrorInfo>
          <merror:callStack>
            <merror:callElement>
              <merror:component>DelegatedAdmin</merror:component>

```

```

    <merror:description>{error message text}</merror:description>
    <merror:returnCode>{ code}</merror:returnCode>
  </merror:callElement>
</merror:callStack>
</merror:errorInfo>
</detail>
</SOAP-ENV: Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

The format of an exemplary SOAP call to release a namespace (NameSpaceReleaseRequest) follows.

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m:NameSpaceReleaseRequest
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <ClientInfo>{Client Application Name}</ClientInfo>
      <Version>2.0</Version>
      <Authorization>
        <Domain> EncryptedkeyX{A.com}</Domain>
        <SiteID>{X}</SiteID>
        <AdminTicket>{ticket}</AdminTicket>
      </Authorization>
    </m:NameSpaceReleaseRequest>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

If the namespace is successfully released, the affiliate will get a response such as the following SOAP response.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m: NamespaceReleaseResponse
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <Success>True</Success>
    </m: NamespaceReleaseResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

If the request to release fails, the affiliate will get an error response such as the following SOAP response.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Body>
    <SOAP-ENV: Fault>
      <faultcode>SOAP-ENV: Server</faultcode>
      <faultstring>{error text message}</faultstring>
      <detail>
        <merror: errorInfo
          xmlns:merror="http://schemas.com/soap-toolkit/faultdetail/error/">
          <merror:returnCode{code}</merror: returnCode>
          <merror:serverErrorInfo>
            <merror:description>{error text message }</merror:description>
          </merror:serverErrorInfo>
          <merror:callStack>
            <merror:callElement>
```

```

    <merror:component>DelegatedAdmin</merror:component>
    <merror:description>{error message text}</merror:description>
    <merror:returnCode>{ code}</merror:returnCode>
  </merror:callElement>
</merror:callStack>
</merror:errorInfo>
</detail>
</SOAP-ENV:Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

The format of an exemplary SOAP call to create a user account (NamespaceSignupRequest) follows.

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m: NamespaceSignupRequest
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <ClientInfo>{Client Application Name}</ClientInfo>
      <Version>2.0</Version>
      <Authorization>
        <Domain> EncryptedkeyX{A.com}</Domain>
        <SiteID>{X}</SiteID>
        <AdminTicket>{ ticket}</AdminTicket>
      </Authorization>
      <User>
        <SignInName>Fred@A.com</SignInName>
        <Password>101-Dalmations</Password>

```

```

        </User>
    </m: NamespaceSignupRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

If an account is successfully created, the following response may be sent.

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
    SOAP-
ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
    <SOAP-ENV:Body>
        <m: NamespaceSignupResponse
            xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
            <Success>True</Success>
            <UID>123456859</UID>
        </m: NamespaceSignupResponse>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

If the account creation fails, the following SOAP response with the error may be sent to the caller.

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
    <SOAP-ENV:Body>
        <SOAP-ENV: Fault>
            <faultcode>SOAP-ENV: Server</faultcode>
            <faultstring>{error text message}</faultstring>
            <detail>
                <m:error: errorInfo

```

```

xmlns:merror="http://schemas.com/soap-toolkit/faultdetail/error/">
<merror:returnCode{code}</merror: returnCode>
    <merror:serverErrorInfo>
        <merror:description>{error text message }</merror:description>
    </merror:serverErrorInfo>
<merror:callStack>
    <merror:callElement>
        <merror:component>DelegatedAdmin</merror:component>
        <merror:description>{error message text}</merror:description>
        <merror:returnCode>{ code}</merror:returnCode>
    </merror:callElement>
</merror:callStack>
</merror:errorInfo>
</detail>
</SOAP-ENV: Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

An exemplary SOAP-based request for removing user accounts from a namespace follows.

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
    SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
    <SOAP-ENV:Body>
        <m: NamespaceRemoveMemberRequest
            xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">
            <ClientInfo>{Client Application Name}</ClientInfo>
            <Version>2.0</Version>
            <Authorization>

```

```

        <Domain> EncryptedkeyX{A.com}</Domain>
        <SiteID>{X}</SiteID>
        <AdminTicket>{ticket}</AdminTicket>
    </Authorization>
    <Remove>
        <SignInName>Joe@A.com</SignInName>
    </Remove>
</m: NamespaceRemoveMemberRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

The following response may be sent to the caller if the user is removed.

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
    SOAP-
ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
    <SOAP-ENV:Body>
        <m: NamespaceRemoveMemberResponse
            xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
            <Success>True</Success>
        </m: NamespaceRemoveMemberResponse>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

If an error occurs while processing a request to remove a user account from a namespace, an error response will be sent such as the following SOAP-based error response.

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
    <SOAP-ENV:Body>

```



```

<SOAP-ENV: Fault>
  <faultcode>SOAP-ENV: Server</faultcode>
  <faultstring>{error text message}</faultstring>
  <detail>
    <merror: errorInfo
      xmlns:merror="http://schemas.com/soap-toolkit/faultdetail/error/">
      <merror:returnValue{code}</merror: returnValue>
        <merror:serverErrorInfo>
          <merror:description>{error text message }</merror:description>
        </merror:serverErrorInfo>
        <merror:callStack>
          <merror:callElement>
            <merror:component>DelegatedAdmin</merror:component>
            <merror:description>{error message text}</merror:description>
            <merror:returnValue>{ code}</merror:returnValue>
          </merror:callElement>
        </merror:callStack>
      </merror:errorInfo>
    </detail>
  </SOAP-ENV: Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

An example SOAP-based API call to enumerate all the administrators in a given namespace is the following.

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>

```

```

<m: NamespaceEnumerateAdminsRequest
  xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
  <ClientInfo>{Client Application Name}</ClientInfo>
  <Version>2.0</Version>
  <Authorization>
    <Domain> EncryptedkeyX{A.com}</Domain>
    <SiteID>{X}</SiteID>
    <AdminTicket>{ ticket}</AdminTicket>
  </Authorization>
  <Type>Namespace</Type>
</m: NamespaceEnumerateAdminsRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

An exemplary SOAP-based response for enumerating a list of administrators for a namespace follows.

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m: NamespaceEnumerateAdminsResponse
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <Success>True</Success>
      <Admins>
        <Name>Joe@A.com</Name>
        <Name>Fred@A.com</Name>
        <Name>Sally@A.com</Name>
      </Admins>
    </m: NamespaceEnumerateAdminsResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

```

    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

An exemplary API call for requesting the authentication server to add or delete administrators for the namespace is shown below.

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
    SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
    <SOAP-ENV:Body>
        <m: NamespaceEditAdminListRequest
            xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
            <ClientInfo>{Client Application Name}</ClientInfo>
            <Version>2.0</Version>
            <Authorization>
                <Domain> EncryptedkeyX{A.com}</Domain>
                <SiteID>{X}</SiteID>
                <AdminTicket>{Encrypted ticket}</AdminTicket>
            </Authorization>
            <Action>Add</Action>
            <Admin>Joe@A.com</Admin>
        </m: NamespaceEditAdminListRequest>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

If the request to process the administrator cannot be processed due to an error, a SOAP-based error response such as shown below will be sent.

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
    <SOAP-ENV:Body>

```

```

<SOAP-ENV: Fault>
  <faultcode>SOAP-ENV: Server</faultcode>
  <faultstring>{error text message}</faultstring>
  <detail>
    <merror: errorInfo
      xmlns:merror="http://schemas.com/soap-toolkit/faultdetail/error/">
      <merror:returnValue{code}</merror: returnValue>
        <merror:serverErrorInfo>
          <merror:description>{error text message }</merror:description>
        </merror:serverErrorInfo>
        <merror:callStack>
          <merror:callElement>
            <merror:component>DelegatedAdmin</merror:component>
            <merror:description>{error message text}</merror:description>
            <merror:returnValue>{ code}</merror:returnValue>
          </merror:callElement>
        </merror:callStack>
      </merror:errorInfo>
    </detail>
  </SOAP-ENV: Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

The following SOAP request may be used to obtain a list of administrators that have administrative rights to the namespace.

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m: NamespaceEnumerateAdminsRequest

```

```

xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
  <ClientInfo>{Client Application Name}</ClientInfo>
  <Version>2.0</Version>
  <Authorization>
    <Domain> EncryptedkeyX{A.com}</Domain>
    <SiteID>{X}</SiteID>
    <AdminTicket>{ ticket}</AdminTicket>
  </Authorization>
  <Type>Namespace</Type>
</m: NameSpaceEnumerateAdminsRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

If the request to enumerate administrators is valid, the authentication server responds with a list of administrators for the namespace in a response such as with the following SOAP response.

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m: NameSpaceEnumerateAdminsResponse
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <Success>True</Success>
      <Admins>
        <Name>Joe@A.com</Name>
        <Name>Fred@A.com</Name>
        <Name>Sally@A.com</Name>
      </Admins>
    </m: NameSpaceEnumerateAdminsResponse>
  </SOAP-ENV:Body>

```

</SOAP-ENV:Envelope>

If there a problem with processing the request to enumerate administrators in a namespace, the following SOAP response is an exemplary error response sent to the requestor.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Body>
    <SOAP-ENV: Fault>
      <faultcode>SOAP-ENV: Server</faultcode>
      <faultstring>{error text message}</faultstring>
      <detail>
        <mserror: errorInfo
          xmlns:mserror="http://schemas.com/soap-toolkit/faultdetail/error/">
          <mserror:returnCode{code}</mserror: returnCode>
            <mserror:serverErrorInfo>
              <mserror:description>{error text message }</mserror:description>
            </mserror:serverErrorInfo>
            <mserror:callStack>
              <mserror:callElement>
                <mserror:component>DelegatedAdmin</mserror:component>
                <mserror:description>{error message text}</mserror:description>
                <mserror:returnCode>{ code}</mserror:returnCode>
              </mserror:callElement>
            </mserror:callStack>
          </mserror:errorInfo>
        </detail>
      </SOAP-ENV: Fault>
    </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>
```

The SOAP request to reset a password may look like the following.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m: NamespaceResetPasswordRequest
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <ClientInfo>{Client Application Name}</ClientInfo>
      <Version>2.0</Version>
      <Authorization>
        <Domain> EncryptedkeyX {A.com}</Domain>
        <SiteID>{X}</SiteID>
        <AdminTicket>{ticket}</AdminTicket>
      </Authorization>
      <User>Fred@A.com</User>
      <Password>OldSmokes</Password>
    </m: NamespaceResetPasswordRequest>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

The following SOAP response is an exemplary SOAP response to inform the requestor that the attempt to reset a password succeeded.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m: NamespaceResetPasswordResponse
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <Success>True</Success>
    </m: NamespaceResetPasswordResponse>
```

```

</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

The following SOAP response is an exemplary SOAP response to inform the requestor that the attempt to reset a password failed.

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Body>
    <SOAP-ENV:Fault>
      <faultcode>SOAP-ENV: Server</faultcode>
      <faultstring>{error text message}</faultstring>
      <detail>
        <merror: errorInfo
          xmlns:merror="http://schemas.com/soap-toolkit/faultdetail/error/">
          <merror:returnValue{code}</merror: returnValue>
            <merror:serverErrorInfo>
              <merror:description>{error text message }</merror:description>
            </merror:serverErrorInfo>
            <merror:callStack>
              <merror:callElement>
                <merror:component>DelegatedAdmin</merror:component>
                <merror:description>{error message text}</merror:description>
                <merror:returnValue>{ code}</merror:returnValue>
              </merror:callElement>
            </merror:callStack>
          </merror:errorInfo>
        </detail>
      </SOAP-ENV: Fault>
    </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>

```



An exemplary SOAP interface to update a profile follows.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
    <m: NamespaceUpdateRequest
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <ClientInfo>{Client Application Name}</ClientInfo>
      <Version>2.0</Version>
      <Authorization>
        <Domain> EncryptedkeyX {A.com}</Domain>
        <SiteID>{X}</SiteID>
        <AdminTicket>{Encrypted ticket}</AdminTicket>
      </Authorization>
      <User>
        <SignInName>Fred@A.com</SignInName>
        <NickName>Joe</NickName>
        <Email></Email>
        <Gender></Gender>
        <Country></Country>
        <Region></Region>
        <PostalCode></PostalCode>
        <Birthdate></Birthdate>
        <SecretQuestion>Who is the coolest cat on Earth?</SecretQuestion>
        <SecretAnswer>Toon</SecretAnswer>
        <AllowEmailinProfile>true</AllowEmailinProfile>
      <AllowAuthenticationSystemNetworkEmail>true</AllowAuthenticationSystemNetworkEmail>
        <LanguagePreference>1033</LanguagePreference>
        <Accessibility>true</Accessibility>
        <FirstName>Sachin</FirstName>
```

```

        <LastName>Kukreja</LastName>
        <TimeZone>America/Los_Angeles</TimeZone >
        <Occupation>A</Occupation>
        <Flags>1100110100</Flags></User>
    </User>
</m: NamespaceUpdateRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

If the request to update a user's profile succeeds, an XML response such as the following SOAP response is sent to the caller.

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
    SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
    <SOAP-ENV:Body>
        <m: NamespaceUpdateResponse
            xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
            <Success>True</Success>
        </m: NamespaceSignupResponse>
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```